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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/540,606  
Filing Date: June 27, 2005  
Appellant(s): TAKENAKA ET AL.

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Lawrence Ashery  
For Appellant

**EXAMINER'S ANSWER**

1. This is in response to the appeal brief filed November 23, 2009 appealing from the Office action mailed August 13, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: claim 7 is not rejected as this claim has been canceled.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

JP 2001-213,064	Takenaka et al.	07-2001
JP 57-103,862	Kuroki et al.	06-1982

JP 2001-007,514

Kozo et al.

12-2001

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5,8-16,23,24 and 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862).

Takenaka et al. (JP 2001-213,064) teaches a printing plate and printing method whereby a process comprises passing a squeegee onto an inclined part of a paste removing part (3) provided on a mask (2) before the printing pattern or paste filling (abstract and fig. 1).

Takenaka et al. (JP 2001-213,064) fails to teach an elevation around the depressions for removal of the paste from the squeegee.

Kuroki et al. (JP 57-103862) teaches a screen printing plate for filling conductor whereby the solid metal screen having a concavo-convex pattern formed at a side where a squeegee starts to move, of a periphery of a printing pattern of the screen printing plate (abstract and Figs. 4,5).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Takenaka et al. (JP 2001-213,064) process by including "elevations" along with the depressions as evidenced by Kuroki et al. (JP 57-103862) with the expectation of achieving a more complete removal of the excess paste from the squeegee.

Features detailed above concerning Takenaka et al. (JP 2001-213,064) and Kuroki et al. (JP 57-103862) are incorporated here.

Takenaka et al. (JP 2001-213,064) and/or Kuroki et al. (JP 57-103862) fail to teach masking both sides (claim 2), forming the groove (cleaning part) (claims 8-12,27-31) and the compositional make-up of the substrate having the holes to be filled (claims 13-15,32-34).

While the Examiner acknowledges the references are silent with respect to these limitations, it is the Examiner's position that these are all "result effective variables" which are within the skill of one practicing in the art and would have been an obvious modification of the art absent a showing of unexpected results garnered directly from the claimed limitations.

No such showing has been supplied to support that the shape of the hole cleaning part, the method of producing the hole cleaning part or the substrate to which the paste is supplied has any criticality to producing the expected result, i.e. cleaning paste material from the squeegee as it passes. Upon such a showing, the Examiner will reconsider his position.

Claims 6 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) further in combination with Kozo et al. (JP 2001-7514).

Features detailed above concerning Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) are incorporated here.

Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) fail to teach a plurality of holes (squeegee cleaning parts).

Kozo et al. (JP 2001-7514) teaches production of wiring board whereby through holes (3) are filled with paste (10) while dummy area holes (9) surround the printing area (2) having the through holes (3).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified (a) Kuroki et al. (JP 57-103862) alone or (b) Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) printing plate to include a plurality of holes as evidenced by Kozo et al. (JP 2001-7514) with the expectation of achieving similar success, i.e. removing paste from squeegee.

#### **(10) Response to Argument**

Appellant argued that the prior art fails to teach depression with an elevation portion around them.

The rejection of Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) teach methods of removing excess paste from a squeegee including depressions and “elevated” portions and it would have been within the skill of one practicing in the art to have combined these two teaching to form a “more complete” removal of the excess paste from the squeegee and the placement of these two “removing means” would be within the skill of one practicing in the art and would produce the desired results. The term “periphery” would mean surround the depression but not necessarily immediately adjacent thereto as seems to be what Appellant is arguing.

As for the advantages, detailed in the response filed 7/6/09, pg. 9, associated with the claims depressions and elevations surrounding the periphery, the combination of prior art teaches this same advantage of removing paste from the squeegee.

Appellant argued that the “elevations” need to be more than 3 microns in height above the mask for the squeegee cleaning to be effective.

First off, only claims 12 and 31 recite such a height elevation limitation. Secondly, the specification, pg. 11, lines 23-26 states that the “effectiveness” is reduced with a height less than 3 microns but does not state the paste would not be removed. It is the Examiner’s position that one skilled in the art would recognize that the height of the elevations as well as the depth of the depression would directly effect in some way the effectiveness of the paste being removed and would be a matter of design choice based on these factors absent a showing of criticality that this would not work.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Brian K Talbot/

Primary Examiner, Art Unit 1792

Conferees:

/Timothy H Meeks/

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Application/Control Number: 10/540,606  
Art Unit: 1792

Page 7